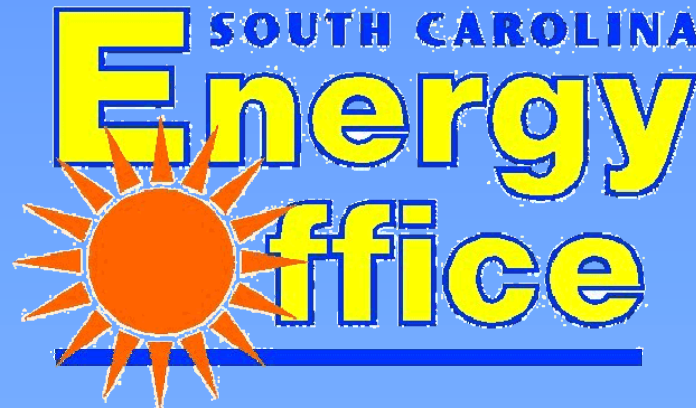


# Creating a Model Energy Conservation Plan

S.C. Resource Conservation  
Challenge Workshop  
October 24, 2007

Whitney Wurzel  
Public Information Coordinator  
South Carolina Energy Office



# SCEO Mission

To increase energy efficiency and diversity, enhance environmental quality and save energy dollars for South Carolina.



# Brief History of the SCEO



- Energy Office was created in 1973
- South Carolina Energy Conservation and Efficiency Act of 1992
- State Budget and Control Board



# Best Practices Guide

A guide designed to provide the facility director with the useful methods of reducing the consumption and cost of energy.



# Best Practices Guide Content



- 1. Energy Management, Managers and Planning**
- 2. Establishing an Energy Plan**
- 3. Methods of Energy Conservation**
- 4. Program Assistance**

# Energy Management, Managers and Planning



## Dedicated Energy Manager

### Navigational Determination

- Determine where you are
- Determine where you need to go
- Determine how to get there



# Establishing an Energy Plan

## Facility Data Collection

- Conditioned area of the building
- Establish baseline

## Determining Goals

- Observe other achievements

## Reports and Reporting

- Track & record against baseline

# Methods of Energy Conservation



- Construction
- Equipment
- Program Control
- Behavior Modification
- Maintenance
- Managing



# Construction

- **Energy Conservation . . .**  
A vital factor in the design!
- **Life Cycle Costing**



# Equipment

- HVAC
- Plumbing
- Electrical



# Program Control

- “Automatic (or Smart) Buildings”
- Controlled Systems
- Supervision



# Behavior Modification

- Basic Comfort
- Cliental



# Maintenance

- Natural Ally of Energy Conservation
- Organized and Coordinated



# Managing

- Record
- Monitor
- Supervise



# Program Assistance

## Technical

- Audits
- Technical Assistance

## Financial

- Self-funding Investment Program
- Loans
- Performance Contracting



# Sample Energy Plan

1. Colleges and Universities
2. School Districts
3. State Agencies

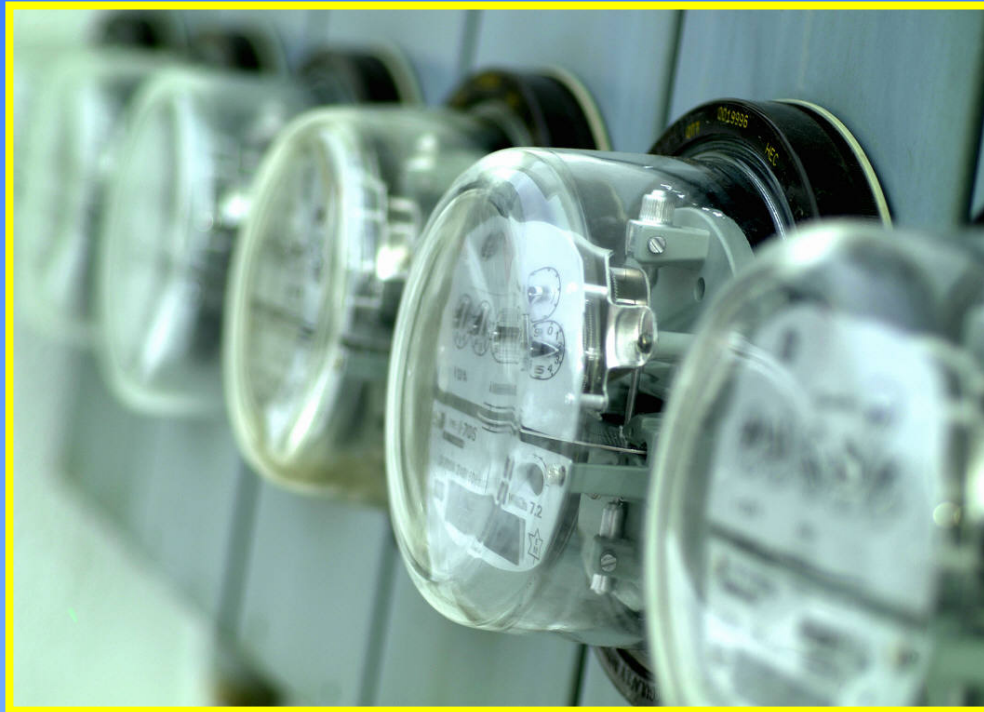


# Sample Plan Content

- Purpose
- Policy
- Energy Manager
- Facility Data
- Goals
- Goal Achievement
- Reporting
- Appendix A & B

# Purpose

**Plan for Energy Use and Conservation!**



**Specific In Intent . . .**

**Eliminate unnecessary  
use of purchased energy**



# Energy Manager

## Outlines Duties and Responsibilities



2006 ASCEM Energy  
Manager of the Year:

David Hogge of Berkeley  
School District

# Facility Data

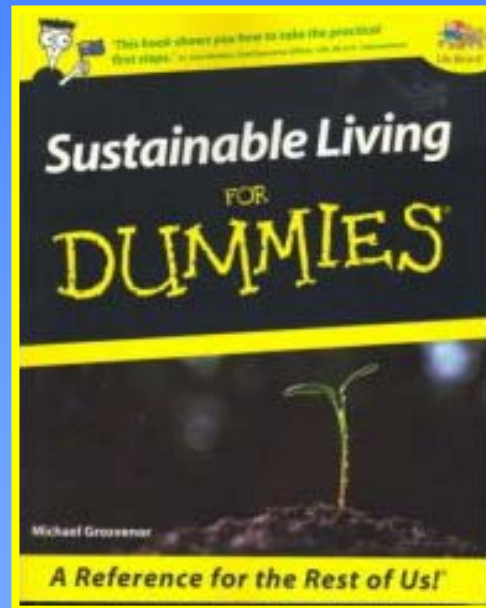
- Obtain accurate square footage
- Evaluate electrical and gas metering
- Look at energy software
- Establish baseline



# Goals



Establish at least a five year plan  
for energy reduction!



# Goal Achievement

## Address . . .

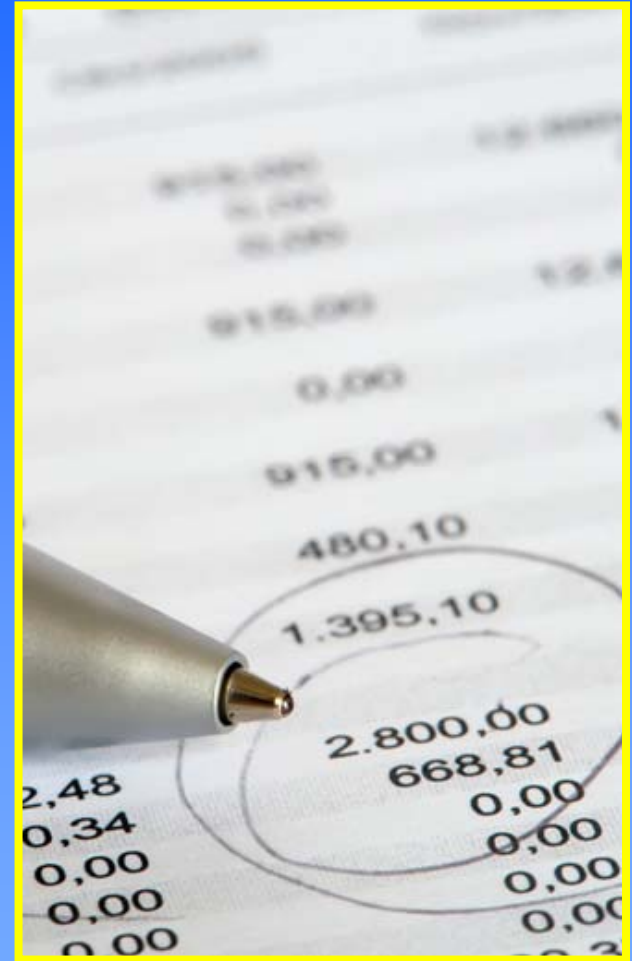
- Operation and Maintenance
- Projects for Conservation
- New Construction
- Involvement by Administration and Staff

# Reporting

## Define Reporting Requirements

- Necessity for accurate and continuous reporting

## Monitoring and Verification





# Appendix A

## Operating and Maintenance Suggested Measures:

- Building Envelope Infiltration
- Lighting
- Heating and Cooling
- Utility Plant Distribution

# Appendix B

## Suggested Projects for Conservation:

- Building Envelope
- Lighting
- Heating and Cooling Systems



# Follow-Up

## Workshops

- 3-4 to present Best Practices Guide

## Publicize

- Prepare hard copy and CDs for distribution to institutions

# Questions?



# Thank You!



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